Climate Change and Human Health Literature Portal

National Institute of
Environmental Health Sciences

Shrinking body size as an ecological response to climate change

Abstract:

Determining how climate change will affect global ecology and ecosystem services is one of the next important frontiers in environmental science. Many species already exhibit smaller sizes as a result of climate change and many others are likely to shrink in response to continued climate change, following fundamental ecological and metabolic rules. This could negatively impact both crop plants and protein sources such as fish that are important for human nutrition. Furthermore, heterogeneity in response is likely to upset ecosystem balances. We discuss future research directions to better understand the trend and help ameliorate the trophic cascades and loss of biodiversity that will probably result from continued decreases in organism size.

Source: http://www.nature.com/nclimate/journal/v1/n8/full/nclimate1259.html

Resource Description

Exposure : ⊠

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Food/Water Security, Precipitation, Temperature

Food/Water Security: Agricultural Productivity, Fisheries

Temperature: Fluctuations

Geographic Feature: ⊠

resource focuses on specific type of geography

None or Unspecified

Geographic Location: ⊠

resource focuses on specific location

Global or Unspecified

Health Impact: ⊠

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

☐

Mitigation/Adaptation: ☒

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type: ☒

format or standard characteristic of resource

Review

Timescale: ☒

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☒

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content